AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES (NON-FEDERAL FUNDING)

This Agreement is entered into by and between the SAN LUIS OBISPO COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, a political subdivision of the State of California, herein called "DISTRICT," and Fugro Consultants Inc., a corporation whose address is 660 Clarion Court, Suite A, San Luis Obispo, CA 93401, herein called "ENGINEER." This Agreement shall be effective as of the date it is fully executed by the parties.

The department responsible for administering this Agreement is the San Luis Obispo County Department of Public Works ("Public Works"), and all written communications hereunder with the DISTRICT shall be addressed to the Director of Public Works ("Director").

WHEREAS, the DISTRICT has a need for special services and advice with respect to the work described herein for the Groundwater Basin Characterization for the Santa Maria Groundwater Basin (hereafter, the "Project"); and

WHEREAS, the Project is one of the components of an update to the San Luis Region Integrated Regional Water Management ("IRWM") Plan that is being funded pursuant to a Round 2 IRWM Regional Planning Grant from the California Department of Water Resources ("Grant"); and

WHEREAS, the ENGINEER warrants that it is specially trained, experienced, expert, and competent to perform such special services.

NOW, THEREFORE, the parties agree with the above recitals, and hereby further agree as follows:

ARTICLE 1. SCOPE OF WORK. The ENGINEER shall, at its own cost and expense, provide all the services, equipment, and materials necessary to complete the work

described in the ENGINEER's Scope of Work (hereafter, collectively "Work") attached hereto as Exhibit A. ENGINEER warrants and represents that said Work encompasses all professional engineering services necessary for the ENGINEER's completion of the groundwater basin characterization activities identified in the Grant, including, without limitation, preparation of a final Santa Maria Groundwater Basin Characterization that can be incorporated into the update to the IRWM Plan. All Work shall be performed to the highest professional standard.

ARTICLE 2. <u>TIME FOR COMPLETION OF WORK.</u> No Work shall be commenced prior to the ENGINEER's receipt of the DISTRICT's Notice to Proceed. All Work shall be completed no later than July 1, 2014, provided, however, that extensions of time may be granted in writing by the Director of Public Works of San Luis Obispo County, which said extensions of time, if any, shall be granted only for reasons attributable to inclement weather, acts of God, or for other cause determined in the sole discretion of the Director of Public Works of San Luis Obispo County to be good and sufficient cause for such extensions.

ARTICLE 3. PAYMENT FOR SERVICES.

- A. <u>COMPENSATION</u>. The DISTRICT shall pay to the ENGINEER as compensation in full for all Work required by this Agreement a sum not to exceed the \$200,000. The ENGINEER's compensation shall be based on actual services performed and costs incurred at the rates set forth for each task in the ENGINEER's Cost Proposal attached hereto as Exhibit B. Progress payments will be made as set forth below based on compensable services provided and allowable costs incurred pursuant to this Agreement.
- B. <u>REPORTS.</u> The ENGINEER shall submit to the DISTRICT, on a monthly basis, a detailed statement of all services performed and all Work accomplished under this Agreement since the ENGINEER's last monthly statement, including the number of hours of Work performed and the personnel involved. For the purpose of timely processing of invoices, the ENGINEER's invoices are not regarded as received until the monthly report is submitted. Any anticipated problems in performing any future Work shall be noted in the monthly reports. The ENGINEER shall also promptly

notify the DISTRICT of any perceived need for a change in the scope of work, and an explanation as to why the ENGINEER did not include said work in the attached Scope of Work.

- C. <u>INVOICES.</u> Billing invoices shall be based upon the ENGINEER's Cost Proposal, attached hereto as Exhibit B. Invoices shall detail the Work performed on each task and each project as applicable. Invoices shall follow a format based upon the Cost Proposal and shall reference this Agreement number and project title. The final invoice must contain the final cost and all credits due the DISTRICT including any equipment purchased under the provisions of Article 22 Equipment Purchase of this Agreement.
- D. <u>RETAINAGE FROM PROGRESS PAYMENTS</u> The DISTRICT shall withhold retainage from each progress payment due ENGINEER in the sum of five percent (5%) until all deliverables identified in the Scope of Work are complete and accepted by the DISTRICT. Once said deliverables are accepted by the DISTRICT, all retainage shall be released within 60 (sixty) days. The DISTRICT reserves the right to withhold from any payment to ENGINEER, including but not limited to any release of retainage, any sums attributable to any costs, damages or claims incurred or experienced by the DISTRICT that arise from any breach of this Agreement by ENGINEER.
- E. <u>ENGINEER'S ASSIGNED PERSONNEL.</u> All Work performed under this Agreement shall be performed by the ENGINEER's personnel indentified in the organizational chart, attached hereto as Exhibit C. Any changes to the personnel designated on this organizational chart must be approved in writing by the DISTRICT's Project Manager.

ARTICLE 4. ACCOUNTING RECORDS.

A. The ENGINEER shall maintain accounting records in accordance with generally accepted accounting principles. The ENGINEER shall obtain the services of a qualified bookkeeper or accountant to ensure that accounting records meet this requirement. The ENGINEER shall maintain acceptable books of accounts which include, but are not limited to, a general ledger, cash receipts journal, cash disbursements journal, general journal, and payroll journal.

- B. The ENGINEER shall record costs in a cost accounting system which clearly identifies the source of all costs. Agreement costs shall not be co-mingled with other project costs, but shall be directly traceable to contract billings to the DISTRICT. The use of worksheets to produce billings shall be kept to a minimum. If worksheets are used to produce billings, all entries should be documented and clearly traceable to the ENGINEER's cost accounting records.
- C. All accounting records and supporting documentation shall be retained for a minimum of five (5) years or until any audit findings are resolved, whichever is later. The ENGINEER shall safeguard the accounting records and supporting documentation.
- D. The ENGINEER shall make accounting records and supporting documentation available on demand to the DISTRICT and its designated auditor for inspection and audit. Disallowed costs shall be repaid to the DISTRICT. The DISTRICT may require that the ENGINEER's accounting records be audited, at the ENGINEER's expense, by an accountant licensed by the State of California. The audit shall be presented to the County Auditor-Controller within thirty (30) calendar days after completion of the audit.

ARTICLE 5. NON-ASSIGNMENT OF AGREEMENT. Inasmuch as this Agreement is intended to secure the specialized services of the ENGINEER, the ENGINEER may not assign, transfer, delegate, or sublet any interest herein without the prior written consent of the DISTRICT and any such assignment, transfer, delegation, or sublease without the DISTRICT's prior written consent shall be considered null and void.

ARTICLE 6. <u>INSURANCE.</u> The ENGINEER, at its sole cost and expense, shall purchase and maintain the insurance policies set forth below on all of its operations under this Agreement. Such policies shall be maintained for the full term of this Agreement and the related warranty period (if applicable) and shall provide products/completed operations coverage for four (4) years following completion of the ENGINEER's Work under this Agreement and acceptance by the DISTRICT. Any failure to comply with the reporting provisions(s) of the policies referred to above shall not affect coverage provided to the DISTRICT, its officers, employees, volunteers, and

agents. For purposes of the insurance policies required hereunder, the term "DISTRICT" shall include officers, employees, volunteers, and agents of the San Luis Obispo County Flood Control and Water Conservation District, California, individually or collectively.

- A. <u>MINIMUM SCOPE AND LIMITS OF REQUIRED INSURANCE POLICIES.</u> The following policies shall be maintained with insurers authorized to do business in the State of California and shall be issued under forms of policies satisfactory to the DISTRICT:
 - 1. <u>COMMERCIAL GENERAL LIABILITY INSURANCE POLICY ("CGL").</u>
 Policy shall include coverage at least as broad as set forth in Insurance Services
 Office (herein "ISO") Commercial General Liability coverage. (Occurrence Form
 CG0001) with policy limits of not less than the following:
 - \$1,000,000 each occurrence (combined single limit);
 - \$1,000,000 for personal injury liability;
 - \$1,000,000 aggregate for products-completed operations; and
 - \$1,000,000 general aggregate.

The general aggregate limits shall apply separately to the ENGINEER's Work under this Agreement.

- 2. **BUSINESS AUTOMOBILE LIABILITY POLICY ("BAL").** Policy shall include coverage at least as broad as set forth in Insurance Services Office Business Automobile Liability Coverage, Code 1 "Any Auto" (Form CA 0001). This policy shall include a minimum combined single limit of not less than one-million dollars (\$1,000,000) for each occurrence, for bodily injury and/or property damage. Such policy shall be applicable to vehicles used in pursuit of any of the activities associated with this Agreement. The ENGINEER shall not provide a Comprehensive Automobile Liability policy which specifically lists scheduled vehicles without the express written consent of DISTRICT.
- 3. WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY INSURANCE POLICY ("WC / EL"). This policy shall include at least the following coverages and policy limits:
 - a. Workers' Compensation insurance as required by the laws of the State of California; and

- b. Employer's Liability Insurance Coverage B with coverage amount not less than one-million dollars (\$1,000,000) each accident / Bodily Injury (herein "BI"); one-million dollars (\$1,000,000) policy limit BI by disease; and, one-million dollars (\$1,000,000) each employee BI by disease.
- 4. **PROFESSIONAL LIABILITY INSURANCE POLICY ("PL").** This policy shall cover damages, liabilities, and costs incurred as a result of the ENGINEER's professional errors and omissions or malpractice. This policy shall include a coverage limit of at least one-million dollars (\$1,000,000) per claim, including the annual aggregate for all claims (such coverage shall apply during the performance of the services under this Agreement and for two (2) years thereafter with respect to incidents which occur during the performance of this Agreement). The ENGINEER shall notify the DISTRICT if any annual aggregate is eroded by more than seventy-five percent (75%) in any given year.
- B. <u>DEDUCTIBLES AND SELF-INSURANCE RETENTIONS.</u> Any deductibles and/or self-insured retentions which apply to any of the insurance policies referred to above shall be declared in writing by the ENGINEER and approved by the DISTRICT before Work is begun pursuant to this Agreement. At the option of the DISTRICT, the ENGINEER shall either reduce or eliminate such deductibles or self-insured retentions as respect the DISTRICT, its officers, employees, volunteers, and agents, or shall provide a financial guarantee satisfactory to the DISTRICT guaranteeing payment of losses and related investigations, claim administration, and/or defense expenses.
- C. **ENDORSEMENTS.** All of the following clauses and endorsements, or similar provisions, are required to be made a part of the insurance policies indicated in parentheses below:
 - 1. A "Cross Liability", "Severability of Interest" or "Separation of Insureds" clause (CGL & BAL);
 - 2. The San Luis Obispo County Flood Control and Water Conservation District, its officers, employees, volunteers, and agents are hereby added as additional insureds with respect to all liabilities arising out of the ENGINEER's performance of Work under this Agreement (CGL & BAL);

- 3. If the insurance policy covers an "accident" basis, it must be changed to "occurrence" (CGL & BAL);
- 4. This policy shall be considered primary insurance with respect to any other valid and collectible insurance DISTRICT may possess, including any self-insured retention DISTRICT may have, and any other insurance DISTRICT does possess shall be considered excess insurance only and shall not be called upon to contribute to this insurance (CGL, BAL, & PL);
- 5. No cancellation or non-renewal of this policy, or reduction of coverage afforded under the policy, shall be effective until written notice has been given at least thirty (30) calendar days prior to the effective date of such reduction or cancellation to DISTRICT at the address set forth below (All Policies);
- 6. The ENGINEER and its insurers shall agree to waive all rights of subrogation against the DISTRICT, its officers, employees, volunteers, and agents for any loss arising under this Agreement (CGL); and
- 7. Deductibles and self-insured retentions must be declared (All Policies).
- D. <u>ABSENCE OF INSURANCE COVERAGE.</u> The DISTRICT may direct the ENGINEER to immediately cease all activities with respect to this Agreement if it determines that the ENGINEER fails to carry, in full force and effect, all insurance policies with coverages at or above the limits specified in this Agreement. Any delays or expense caused due to stopping of Work and change of insurance shall be considered the ENGINEER's delay and expense. At the DISTRICT's discretion, under conditions of lapse, the DISTRICT may purchase appropriate insurance and charge all costs related to such policy to the ENGINEER.
- E. PROOF OF INSURANCE COVERAGE AND COVERAGE VERIFICATION. Prior to commencement of Work under this Agreement, and annually thereafter for the term of this Agreement, the ENGINEER, or each of the ENGINEER's insurance brokers or companies, shall provide the DISTRICT a current copy of a Certificate of Insurance, on an Accord or similar form, which includes complete policy coverage verification, as evidence of the stipulated coverages. All of the insurance companies providing insurance for the ENGINEER shall have, and provide evidence of, a Best Rating Service rate of A VI or above. The Certificate of Insurance and coverage

verification and all other notices related to cancellation or non-renewal shall be mailed to:

Ray Dienzo, Public Works Department Room 207, County Government Center San Luis Obispo CA, 93408

ARTICLE 7. INDEMNIFICATION.

- A. The ENGINEER shall defend, indemnify and hold harmless the DISTRICT, its officers, agents, and employees from all claims, demands, damages, costs, expenses, judgments, attorney fees, liabilities, or other losses (hereafter, collectively "claims") that may be asserted by any person or entity, and that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the ENGINEER. The parties agree that, in addition to the ENGINEER's general and professional duties of care, the ENGINEER has a duty of care to act in accordance with the terms of this Agreement. In addition to whatever other acts or omissions of ENGINEER that constitute negligence, recklessness, or willful misconduct under applicable law, the parties acknowledge that any act or omission of the ENGINEER that causes any damages, and constitutes a breach of any duty under, or pursuant to, this Agreement, shall at a minimum constitute negligence (and may constitute recklessness or willful conduct if so warranted by the facts).
- B. The preceding paragraph applies to any and all such claims, regardless of the nature of the claim or theory of recovery. For purposes of the paragraphs found in this Article of the Agreement, "ENGINEER" shall include the ENGINEER, and/or its agents, employees, subcontractors, or other independent contractors hired by, or working under, the ENGINEER.
- C. It is the intent of the parties to provide the DISTRICT the fullest indemnification, defense, and "hold harmless" rights allowed under the law. No provisions of this Agreement shall be construed in a manner that would constitute a waiver or modification of Civil Code Section 2782.8. If any word(s) contained herein are deemed by a court to be in contravention of applicable law, said word(s) shall be severed from this Agreement and the remaining language shall be given full force and effect. Nothing contained in this Agreement shall be construed to require the

ENGINEER to indemnify the DISTRICT against any responsibility or liability in contravention of Civil Code Section 2782.8.

D. Without limiting the foregoing, ENGINEER expressly agrees to indemnify, defend and hold harmless the DISTRICT against any loss or liability arising out of any claim or action brought against DISTRICT by the California Department of Water Resources for breach of the Grant Agreement described below (or any other related cause of action), based on ENGINEER's failure to comply with the terms, provisions, conditions and written commitments set forth herein.

ARTICLE 8. <u>ENGINEER'S RESPONSIBILITY FOR ITS WORK.</u>

- A. The ENGINEER has been hired by the DISTRICT because of the ENGINEER's specialized expertise in performing the Work described in the attached Scope of Work, Exhibit A. The ENGINEER shall be solely responsible for such Work. The DISTRICT's review, approval, and/or adoption of any designs, plans, specifications, or any other Work shall be in reliance on the ENGINEER's specialized expertise and shall not relieve the ENGINEER of its sole responsibility for the Work. The DISTRICT is under no duty or obligation to review or verify the appropriateness, quality, or accuracy of any designs, plans, specifications, or any other Work, including but not limited to, any methods, procedures, tests, calculations, drawings, or other information used or created by the ENGINEER in performing any Work under this Agreement.
- B. All information which the ENGINEER receives from the DISTRICT should be independently verified by the ENGINEER. The ENGINEER should not rely upon such information unless it has independently verified its accuracy. The only exception to the foregoing arises when the DISTRICT has expressly stated in writing that certain information may be relied upon by the ENGINEER without the ENGINEER's independent verification. In such event, the ENGINEER is still obliged to promptly notify the DISTRICT whenever the ENGINEER becomes aware of any information that is inconsistent with any information which the DISTRICT has stated may be relied upon by the ENGINEER.
- C. Pursuant to the provisions of this Article, the ENGINEER is responsible for all Work under this Agreement, including the work performed by any subcontractors or

any other independent contractors which ENGINEER hires or contracts with regarding the Work.

ARTICLE 9. INSURANCE AND INDEMNIFICATION AS MATERIAL PROVISIONS.

The parties expressly agree that the indemnification and insurance clauses in this Agreement are an integral part of the consideration exchanged in this Agreement. The compensation stated in this Agreement includes compensation for the risks transferred to the ENGINEER by the indemnification and insurance clauses.

ARTICLE 10. <u>ENGINEER'S ENDORSEMENT ON REPORTS, ETC.</u> The ENGINEER shall endorse all reports, maps, plans, documents, materials, and other data in accordance with applicable provisions of the laws of the State of California.

ARTICLE 11. DOCUMENTS, INFORMATION AND MATERIALS OWNERSHIP.

All documents, information, and materials of any and every type prepared by the ENGINEER (or any subcontractor) pursuant to this Agreement shall be the property of the DISTRICT. Such documents shall include but not be limited to data, drawings, specifications, reports, estimates, summaries, and such other information and materials as may have been accumulated by the ENGINEER (or any subcontractor) in performing Work under this Agreement, whether completed or in process. The ENGINEER shall assume no responsibility for the unintended use by others of any such documents, information, or materials on project(s) which are not related to the scope of services described under this Agreement.

ARTICLE 12. TERMINATION OF AGREEMENT WITHOUT CAUSE. The DISTRICT may terminate this Agreement at any time by giving the ENGINEER thirty (30) calendar days written notice of such termination. Termination shall have no effect upon the rights and obligations of the parties arising out of any transaction occurring prior to the effective date of such termination. Other than payments for services satisfactorily rendered prior to the effective date of said termination, the ENGINEER shall be entitled to no further compensation or payment of any type from the DISTRICT.

ARTICLE 13. TERMINATION OF AGREEMENT FOR CAUSE. If the ENGINEER fails to perform the ENGINEER's duties to the satisfaction of the DISTRICT; or if the ENGINEER fails to fulfill in a timely and professional manner the ENGINEER's obligations under this Agreement; or if the ENGINEER violates any of the terms or provisions of this Agreement; or if the ENGINEER, or the ENGINEER's agents or employees, fails to exercise good behavior either during or outside of working hours that is of such a nature as to bring discredit upon the DISTRICT, then the DISTRICT shall have the right to terminate this Agreement effective immediately upon the DISTRICT giving written notice thereof to the ENGINEER. Termination shall have no effect upon the rights and obligations of the parties arising out of any transaction occurring prior to the effective date of such termination. The ENGINEER shall be paid for all Work satisfactorily completed prior to the effective date of such termination. If the DISTRICT's termination of the Agreement for cause is defective for any reason, including but not limited to the DISTRICT's reliance on erroneous facts concerning the ENGINEER's performance, or any defect in notice thereof, this Agreement shall automatically terminate without cause thirty (30) calendar days following the DISTRICT's written notice of termination for cause to the ENGINEER, and the DISTRICT's maximum liability shall not exceed the amount payable to the ENGINEER under Article 12 above.

ARTICLE 14. <u>COMPLIANCE WITH LAWS.</u> The ENGINEER shall comply with all Federal, State, and local laws and ordinances that are applicable to the performance of the Work of this Agreement. This includes compliance with prevailing wage rates and their payment in accordance with the California Labor Code. The ENGINEER acknowledges that labor performed on site to support any Work required under this Agreement is a public work within the meaning of Labor Code Section 1720. The ENGINEER will comply, or cause its subconsultant(s) to comply, with the provisions of Labor Code Section 1774.

ARTICLE 15. <u>COVENANT AGAINST CONTINGENT FEES.</u> The ENGINEER warrants that it has not employed or retained any company or person, other than a bona fide employee working for the ENGINEER, to solicit or secure this Agreement, and that it has not paid or agreed to pay any company or person, other than a bona fide employee,

any fee, commission, percent, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, the DISTRICT shall have the right to annul this Agreement without liability or, in its discretion to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

ARTICLE 16. DISPUTES & CLAIMS.

- NOTICE OF POTENTIAL CLAIM. The ENGINEER shall not be entitled to the payment of any additional compensation for any act, or failure to act, by the DISTRICT, or for the happening of any event, thing, occurrence, or other cause, unless the ENGINEER has provided the DISTRICT with timely written Notice of Potential Claim as hereinafter specified. The written Notice of Potential Claim shall set forth the reasons for which the ENGINEER believes additional compensation will or may be due, the nature of the cost involved, and, insofar as possible, the amount of the potential claim. The said notice as above required must have been given to the DISTRICT prior to the time that the ENGINEER shall have performed the work giving rise to the potential claim for additional compensation, if based on an act or failure to act by the DISTRICT, or in all other cases within fifteen (15) calendar days after the happening of the event, thing, occurrence, or other cause, giving rise to the potential claim. It is the intention of this paragraph that differences between the parties relating to this Agreement be brought to the attention of the DISTRICT at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken. The ENGINEER hereby agrees that it shall have no right to additional compensation for any claim that may be based on any such act, failure to act, event, thing, or occurrence for which no written Notice of Potential Claim as herein required was filed with the DISTRICT Director of Public Works.
- B. **PROCESSING OF ACTUAL CLAIM.** In addition to the above requirements for Notice of Potential Claim, a detailed Notice of Actual Claim must be submitted in writing to the DISTRICT on or before the date of final payment under this Agreement. All such claims shall be governed by the procedures set forth in Sections 20104.2 and 20104.4 of the Public Contract Code, except that the word

"claim" as used in said sections shall be construed as referring to any claim relating to this Agreement. The ENGINEER shall not be entitled to any additional compensation unless the ENGINEER has (1) provided the DISTRICT with a timely written Notice of Actual Claim and (2) followed the procedures set forth in Public Contract Code Sections 20104.2 and 20104.4.

C. <u>CLAIM IS NO EXCUSE</u>. Neither the filing of a Notice of Potential Claim or of a Notice of Actual Claim, nor the pendency of a dispute or claim, nor its consideration by the DISTRICT, shall excuse the ENGINEER from full and timely performance in accordance with the terms of this Agreement.

article 17. Engineer is an independent contractor. It is expressly understood that in the performance of the services herein provided, the ENGINEER shall be, and is, an independent contractor, and is not an agent or employee of the DISTRICT. The ENGINEER has and shall retain the right to exercise full control over the employment, direction, compensation, and discharge of all persons assisting the ENGINEER in the performance of the services rendered hereunder. The ENGINEER shall be solely responsible for all matters relating to the payment of its employees, including compliance with Social Security, withholding, and all other regulations governing such matters.

ARTICLE 18. ENTIRE AGREEMENT AND MODIFICATION. This Agreement supersedes all previous agreements and constitutes the entire understanding of the parties hereto. The ENGINEER shall be entitled to no other compensation and/or benefits than those specified herein. No changes, amendments, or alterations shall be effective unless in writing and signed by both parties. Any changes increasing the ENGINEER's compensation and/or benefits must be approved by the DISTRICT's Board of Supervisors; any other changes may be signed by the County Director of Public Works on behalf of the DISTRICT. The ENGINEER specifically acknowledges that in entering into and executing this Agreement, the ENGINEER relies solely upon the provisions contained in this Agreement and no others. To the extent there is any inconsistency between the text in the body of this Agreement and anything in any of the Exhibits attached hereto, the text in the body of this Agreement shall prevail.

ARTICLE 19. ENFORCEABILITY. If any term, covenant, condition, or provision of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder of the provisions hereof shall remain in full force and effect and shall in no way be affected, impaired, or invalidated thereby.

ARTICLE 20. WARRANTY OF ENGINEER. The ENGINEER warrants that the ENGINEER and each of the personnel employed or otherwise retained by the ENGINEER for Work under this Agreement are properly certified and licensed under the laws and regulations of the State of California to provide the special services herein agreed to.

ARTICLE 21. SUBCONTRACTORS.

- A. Other than Work designated in Exhibits A and B to be performed by other persons or entities, the ENGINEER shall perform the Work contemplated with resources available within its own organization and no portion of the Work shall be subcontracted without prior written authorization by the DISTRICT. In the event the DISTRICT provides written authorization for Work to be performed by a subcontractor, the use of the words "subcontractor" and "subcontract" in this Article shall refer to such authorized subcontracting to a subcontractor of the first tier or any other tier. The terms "subcontract" and "subcontractor" include any and all contracts or arrangements by which ENGINEER hires or enters into a contract with any subconsultants regarding any Work.
- B. Nothing contained in this Agreement or otherwise, shall create any contractual relation between the DISTRICT and any subcontractors, and no subcontract shall relieve the ENGINEER of its responsibilities and obligations hereunder. The ENGINEER agrees to be as fully responsible to the DISTRICT for the acts and omissions of its subcontractors and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by the ENGINEER. The ENGINEER's obligation to pay its subcontractors is an independent obligation from the DISTRICT's obligation to make payments to the ENGINEER.

- C. Any subcontract entered into by the ENGINEER relating to this Agreement, shall bind the subcontractor to all of the provisions of this Article by incorporating the provisions of this Article in any such subcontract, and substituting the name of the subcontractor in place of the word "ENGINEER" where it appears in this Article.
- D. Any substitution of subcontractors must be approved in writing by the DISTRICT's Project Manager in advance of assigning work to a substitute subcontractor.

ARTICLE 22. EQUIPMENT PURCHASE.

- A. Prior authorization in writing, by the DISTRICT's Project Manager, shall be required before the ENGINEER enters into any unbudgeted purchase order or subcontract exceeding five thousand dollars (\$5,000) for equipment. The ENGINEER shall provide an evaluation of the necessity or desirability of incurring such costs and three (3) competitive quotations must be submitted with the request, or the absence of bidding must be adequately justified.
- B. Any equipment purchased as a result of this Agreement is subject to the following: The ENGINEER shall maintain an inventory of all nonexpendable property. Nonexpendable property is defined as having a useful life of at least two (2) years and an acquisition cost of five thousand dollars (\$5,000) or more. If the purchased equipment needs replacement and is sold or traded in, the DISTRICT shall receive a proper refund or credit at the conclusion of the Agreement, or if the Agreement is terminated, the ENGINEER may either keep the equipment and credit the DISTRICT in an amount equal to its fair market value, or sell such equipment at the best price obtainable at a public or private sale, in accordance with established DISTRICT procedures; and credit the DISTRICT in an amount equal to the sales price. If the ENGINEER, with the prior written approval of the DISTRICT, elects to keep the equipment, its fair market value shall be determined by an appraiser mutually acceptable to the DISTRICT and the ENGINEER, at the ENGINEER's expense.

ARTICLE 23. <u>APPLICABLE LAW AND VENUE</u>. This Agreement has been executed and delivered in the State of California and the validity, enforceability, and interpretation

of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. All duties and obligations of the parties created hereunder are performable in San Luis Obispo County and such County shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

ARTICLE 24. NOTICES. Any notice required to be given pursuant to the terms and provisions hereof shall be in writing and shall be sent by first class mail to the DISTRICT at:

Mr. Paavo Ogren, Director San Luis Obispo County Department of Public Works County Government Center, Room 207 San Luis Obispo, CA 93408

and to the ENGINEER:		

ARTICLE 25. COST DISCLOSURE - DOCUMENTS AND WRITTEN REPORTS.

Pursuant to Government Code Section 7550, if the total cost of this Agreement is over five thousand dollars (\$5,000), the ENGINEER shall include in all final documents and in all written reports submitted a written summary of costs, which shall set forth the numbers and dollar amounts of all contracts and subcontracts relating to the preparation of such documentation or written report. The Agreement and subagreement numbers and dollar amounts shall be contained in a separate section of such document or written report.

ARTICLE 26. CONFIDENTIALITY OF DATA.

A. All financial, statistical, personal, technical, or other data and information relative to the DISTRICT's operations, which are designated confidential by the DISTRICT and made available to the ENGINEER in order to carry out this

Agreement, shall be protected by the ENGINEER from unauthorized use and disclosure, and shall not be made available to any individual or organization by the ENGINEER without the prior written approval of the DISTRICT.

B. Permission to disclose information on one occasion, or public hearing held by the DISTRICT relating to this Agreement, shall not authorize the ENGINEER to further disclose such information, or disseminate the same on any other occasion.

ARTICLE 27. RESTRICTIVE COVENANT. The ENGINEER agrees that it will not, during the continuance of this Agreement, perform or otherwise exercise the services described in Exhibit A for anyone except for the DISTRICT, unless and until the DISTRICT waives this restriction.

ARTICLE 28. QUALITY CONTROL AND QUALITY ASSURANCE. The ENGINEER shall provide a description of its Quality Control procedure. The process shall be implemented for all facets of Work and a QC-QA statement and signature shall be placed on all submittals to the DISTRICT.

ARTICLE 29. CLAIMS FILED BY THIRD PARTIES.

- A. If claims are filed against the DISTRICT by any third party that relates in any way to any Work within the ENGINEER's Scope of Work under this Agreement, and additional information or assistance from the ENGINEER's personnel is requested by the DISTRICT in order to evaluate or defend against such claims, the ENGINEER agrees to cooperate with and provide timely response to any reasonable requests for information submitted to the ENGINEER by the DISTRICT relating to such claims. To the extent the information requested by the DISTRICT only seeks copies of documents or other factual information relating to Work performed by the ENGINEER, the ENGINEER will only be compensated for any clerical costs associated with providing the DISTRICT the requested factual information.
- B. The ENGINEER's personnel that the DISTRICT considers essential to assist in defending against such claims will be made available for consultation with the DISTRICT upon reasonable notice from the DISTRICT. In the event the expert opinions of the ENGINEER's personnel are sought by the DISTRICT through such

consultation or through testimony, and only in such event, such consultation or testimony will be reimbursed at the same rates, including travel costs that are being paid for the ENGINEER's personnel services under this Agreement. In the event the testimonies of any of the ENGINEER's personnel are sought by another party, the ENGINEER reserves the right to charge the other party a different rate for deposition or trial testimony.

- C. Services of the ENGINEER's personnel in connection with the DISTRICT's third-party claims will be performed pursuant to a written contract amendment, if necessary, extending the termination date of this agreement in order to finally resolve the claims.
- D. Any subcontract entered into by the ENGINEER relating to this Agreement, shall bind the subcontractor to all of the provisions of this Article by incorporating the provisions of this Article in any such subcontract, and substituting the name of the subcontractor in place of the word "ENGINEER" where it appears in this Article.

ARTICLE 30. CONFLICT OF INTEREST.

- A. The ENGINEER shall disclose any financial, business, or other relationship with the DISTRICT that may be affected by the outcome of this Agreement, or any ensuing DISTRICT construction project. The ENGINEER shall also list current clients who may have a financial interest in the outcome of this Agreement, or any ensuing DISTRICT construction project, which will follow.
- B. The ENGINEER hereby certifies that it does not now have, nor shall it acquire any financial or business interest that would conflict with the performance of services under this Agreement.
- C. Any subcontract entered into by the ENGINEER relating to this Agreement, shall bind the subcontractor to all of the provisions of this Article by incorporating the provisions of this Article in any such subcontract, and substituting the name of the subcontractor in place of the word "ENGINEER" where it appears in this Article.
- D. The ENGINEER hereby certifies that neither the ENGINEER, nor any firm affiliated with the ENGINEER will bid on any construction contract, or on any contract to provide construction inspection for any construction project resulting from

this Agreement. An affiliated firm is one, which is subject to the control of one or more of the same persons through joint-ownership, or otherwise.

E. Except for subcontractors whose services are limited to providing surveying or materials testing information, no subcontractor who has provided design services in connection with this Agreement shall be eligible to bid on any construction contract, or on any contract to provide construction inspection for any construction project resulting from this Agreement.

ARTICLE 31. COMPLIANCE WITH GRANT AGREEMENT. ENGINEER acknowledges and agrees that this Agreement is subject to the obligations and limitations imposed on DISTRICT by the Grant Agreement between the California Department of Water Resources ("State") and the DISTRICT in connection with the Grant ("Grant Agreement") and all future amendments to the Grant Agreement. ENGINEER further acknowledges that if the Grant Agreement is terminated by the State, the DISTRICT shall have the right to terminate or amend this Agreement by giving written notice. ENGINEER hereby expressly agrees to the provisions of the Grant Agreement and to take all actions (and provide all information) necessary for the DISTRICT to satisfy its obligations under the Grant Agreement. ENGINEER further agrees that the DISTRICT has the right to enter into amendments to the Grant Agreement and shall not be restricted or impaired, in any way, by this Agreement. Without limiting the foregoing, ENGINEER expressly agrees as follows: By signing this Agreement, ENGINEER hereby certifies, under penalty of perjury under the laws of the State of California, compliance with the requirements of the Drug-Free Workplace Act of 1990 (Government Code 8350 et seg.) and has or will provide a drug-free workplace by taking the following actions:

1. Publish a statement notifying employees, contractors, and subcontractors that unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited and specifying actions to be taken against employees, contractors or subcontractors for violations, as required by Government Code Section 8355(a).

- 2. Establish a Drug-Free Awareness Program, as required by Government Code Section 8355(b) to inform employees, contractors, or subcontractors about all of the following:
- i. ENGINEER's policy of maintaining a drug-free workplace,
- ii. Any available counseling, rehabilitation, and employee assistance programs, and
- iii. Penalties that may be imposed upon employees, contractors, and subcontractors for drug abuse violations.
- 3. Provide as required by Government Code Section 8355(c) that every employee, contractor, and/or subcontractor who works under this Agreement will (a) receive a copy of the ENGINEER's drug-free policy statement, and (b) will agree to abide by terms of ENGINEER's conditions of employment, contract, or subcontract.
- B. ENGINEER affirms that it is aware of the provisions of Section 3700 of the California Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code and ENGINEER affirms that it will comply with such provisions before commencing the performance of the Work under this Contract and will make its contractors and subcontractors aware of this provision.
- C. ENGINEER agrees to comply with all applicable California Labor Code requirements, including prevailing wage provisions.
- D. ENGINEER agrees to maintain all books, records, and other documents pertinent to the Work performed pursuant to this Contract in accordance with generally accepted accounting principles and practices. Records are subject to inspection by the DISTRICT or State at any and all reasonable times.
- E. ENGINEER agrees that all records pertinent to the Work performed pursuant to this Agreement shall be preserved for at least three (3) years after Project completion.

IN WITNESS THEREOF, the parties hereto have executed this Agreement, and this Agreement shall become effective on the date shown signed by the San Luis Obispo County Flood Control and Water Conservation District.

SAN LUIS OBISPO COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

	of the Board ispo County Flood Control an	Date:	
	ervation District	aria	
ATTEST:			
	c and Ex-Officio Clerk of the pervisors, County of San Luis fornia		-
ENGINEER			
By: Paul C	a. Porm	Date:	13
Name: Paul	A. Sørensen	_	
Title: Principe	el Hydrogeologist		
APPROVED AS TO RITA L. NEAL County Counsel	O FORM AND LEGAL EFFE	ECT:	
By: Deputy Cour	nty Counsel	Date: <u>2019</u> 2, 2013	3

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SCOPE OF WORK

TASK 1 - PROJECT ADMINISTRATION

Fugro recognizes that communication and coordination between project team members, the District, and the Steering Committee stakeholders are the key factors in successful project completion. Paul Sorensen will serve as the Project Manager and have primary responsibility for project administration. He understands the importance of communication, reporting, and delivering a final product that reflects the District's goals and objectives.

To accomplish these goals, we will facilitate interaction with the Steering Committee and public involvement, maintain progress schedules, monitor budgets, provide monthly progress reports to the District, and prepare project invoices formatted per District guidelines. Fugro/GEI will also assist the District as needed to prepare monthly progress reports for quarterly reporting requirements related to the IRWM Planning Grant agreement.

Successful completion of a multi-disciplined project such as this one is dependent on a comprehensive and proactive QA/QC program through the development of an internal review process.

There are different facets of a successful QA/QC program, but at the core is a need to focus on two primary components, including stakeholder and client satisfaction, and technical quality. The overall higher level oversight of product quality, stakeholder expectations, and deliverable requirements will be led by William J. Bennett, Vice President and Principal Engineer with GEI Consultants.

Because a large component of the project includes development of new data through well testing, stream-aquifer interaction analyses, preparation of hydrogeologic cross sections, and analysis of recharge areas and offshore aquifers, we believe that oversight through the fresh eyes of a highly technical analyst is paramount to a successful project. In that role, we have identified Richard Shatz, Principal Hydrogeologist with GEI Consultants, to lead those efforts.

TASK 2 - DATA ANALYSIS

Fugro/GEI are aware that extensive previous geologic and hydrogeologic studies have been conducted throughout the Santa Maria Groundwater Basin. The Project Team will work

closely with the District and Steering Committee to ensure we have all relevant previous studies and data, and that we avoid redundant work. We will conduct an extensive review of previous studies/data and compile/develop a database of available resources. The database will include technical existing reports, monitoring plans/reports, response plans, legal documents, well data, topographic data, aerial photographs, and other relevant data. The compiled database will be subject to technical review and QA/QC related to duplicate data, format, confidentiality, etc.

The assembled database will be reviewed to identify significant data gaps, with particular attention to future plans for preparation of a Salt/Nutrient Management Plan and a numerical groundwater model. We will consult with the Steering Committee to prioritize data gaps and refine the scope of work for Task 3 as needed.

Anticipated Deliverables:

Technical Memorandum #1 will document the data compilation and analysis efforts, summarize the available information, and identify the critical data gaps. The TM will include a compilation of all the collected materials in electronic format, organized in a useful and meaningful format.

TASK 3 – GROUNDWATER BASIN CHARACTERIZATION

The Basin aquifer system consists of Pliocene age Pismo and Careaga Formation and Plio-Pleistocene age Paso Robles Formation, overlain by Quaternary dune sands and locally alluvium. Quaternary age displacements have occurred in the Pismo, Careaga, and Paso Robles formations. effects of faulting on groundwater flow are not well understood. The basin characterization subtasks are designed to improve understanding of the hvdrogeologic characteristics (e.g., transmissivity, hydraulic conductivity, groundwater occurrence movement, water balance, etc.) of the various geologic formations and structure in the basin.

Fugro staff are particularly suited to accomplish these technical analytical tasks. We have conducted these types of analyses for many years throughout California, including numerous similar efforts in San Luis Obispo County. Because of our experience with these tasks, we can quickly and effectively interact with the

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Steering Committee to successfully fulfill these data needs.

Transducer Installation

The first subtask involves coordination with the Steering Committee to evaluate the existing network of monitoring wells in the area, select as many as four key existing wells, and install pressure/temperature/conductivity probes in those four key monitoring wells. Fugro has been performing these tasks as a subconsultant to GEI Consultants on behalf of the NCMA for the past two years, and can seamlessly expand our current efforts to include the whole project area. We will leverage our knowledge of basin hydrogeologic conditions and the existing monitoring well network, and coordinate with the Steering Committee to select the optimum Criteria for well selection include locations. those locations that will augment the SMGB management area response plans and facilitate future preparation of the SNMP groundwater flow model. The selected locations will be limited to those with boring logs and known screen depths.

Geologic Cross-Sections

The second subtask includes evaluation of hydrogeologic data and development of eight geologic cross-sections. Anticipated locations for cross-sections will include along the boundaries of the management areas in order to facilitate better understanding of groundwater flow into and out of each management area. Another key location is the western boundary of the project area with respect to potential for seawater intrusion. There will also be emphasis on geologic cross-sections across boundaries that, combined with groundwater elevation contour maps, can improve understanding of the impacts that faults may have on groundwater flow in the basin.

Our experience with previous work for the NCMA, City of Pismo Beach, City of Arroyo Grande, Nipomo Community Services District, and the Santa Maria Basin litigation efforts will allow us to efficiently compile the information from the technical experts on the Steering Committee and prepare these graphics. Because we have performed these types of analyses and developed hundreds of cross-sections in the course of previous project efforts, we understand the critical aspects of three-dimensional information to the successful development of numerical groundwater flow models.

Well Testing

The third subtask involves evaluation of the existing network of water supply and monitoring wells and, through collaboration with and approval by the Steering Committee, selection of up to eight existing water wells to conduct pumping tests. Well testing will be constrained to locations of existing pumping and observation wells. If possible, locations will include along the boundaries of management areas to provide better understanding of variability in aquifer parameters for groundwater flow calculations. Consideration will also be given to select critical well locations to conduct pumping test(s) that help characterize that potential impact of fault boundaries on groundwater flow. We will also attempt to conduct well testing in different geologic formations and/or focus on those geologic formations with less existing data. The well testing budget estimate assumes that operational pumps are present in wells to be tested for this project. However, optional costs are provided for retaining a drilling/pump subcontractor to install/operate a test pump in case a well testing location is selected that does not already have a pump installed.

Fugro staff have conducted hundreds of pumping tests of wells throughout California, including several tens of tests in San Luis Obispo County and in the Santa Maria Basin. We have extensive expertise and highly skilled capabilities in pumping test data analysis and presentation, both for aquifer characterization and for purposes of insertion into numerical flow model input parameters. Our staff are quite comfortable running the tests, collecting the data, and analyzing the data through computer-based analytical software.

Surface Water Infiltration

The fourth subtask entails evaluation of surface water infiltration. A previous water balance study for NCMA identified surface water infiltration along Arroyo Grande Creek as a major recharge mechanism. A limited one-day field survey was conducted on April 18, 2006 to evaluate Arroyo Grande Creek surface water infiltration (2.2 cubic feet per second (cfs) or 1,600 acre feet per year (AFY)). The only other such study was conducted by in 1985 (3 cfs or 2,100 AFY). Other informal observations by San Luis Obispo County staff estimated up to 5 cfs or 3,600 AFY of surface water infiltration along Arroyo Grande Creek.



A previous DWR water balance study for Nipomo Mesa indicated negligible surface water infiltration. Streams that traverse the Nipomo Mesa (similar area as encompassed by NMMA) include Nipomo Creek, Black Lake Canyon Creek, and Los Berros Creek.

The scope of work for this subtask will include compilation, evaluation, and tabulation of all previous field investigations and reports related to quantifying surface water infiltration. We will also compile and review soils data, surficial geology, streamflow data, and groundwater levels along each stream to qualitatively evaluate surface water infiltration potential – particularly for those streams where surface water infiltration has not previously been quantified.

An optional task is included for field work to perform synoptic stream surveys on Arrovo Grande Creek, Los Berros Creek, and Nipomo The Arroyo Grande Creek survey is Creek. intended to provide confirmation of previous results and/or evaluate streamflow infiltration during a different time of year than previous The Los Berros Creek survey will surveys. attempt to quantify potential infiltration along with channel in the NMMA prior to flowing into Arroyo Grande. The Nipomo Creek survey will also be designed to evaluate potential inflow to the creek from treated wastewater percolation at the nearby Nipomo CSD Southland facility. Streamflow measurements and infiltration surveys on Nipomo Creek previously conducted by Fugro on behalf of Nipomo CSD will be incorporated into the results of these efforts. Each survey is intended to be conducted in one day with measurements being collected at two to three locations.

Recharge Areas

The fifth subtask involves assessment of potential recharge areas for supplemental groundwater recharge. As of 2007, storm water in Arroyo Grande and Grover Beach was routed to infiltration ponds with a combined capacity of about 200 acre-feet, and a combined tributary watershed area of approximately 1,000 acres. The average annual inflow attributed to infiltration basins was about 325 AFY with a range from 50 to 750 AFY. It was estimated that these totals represent 15 percent of total storm water in the Northern Cities area, and potential exists to expand up to 1,000 AFY.

The proposed study will review available data/reports to update the status of current

infrastructure for supplemental recharge. Furthermore, we will review soils data, land use, storm water collection systems, and other relevant data to evaluate potential areas/methods for additional recharge. Methods to be considered include stormwater detention ponds, percolation ponds, dry wells, and injection wells.

Offshore Aquifers and Seawater Intrusion

The sixth subtask involves evaluation of offshore aquifers and seawater intrusion. Review of existing reports will include the Geology of the California Continental Margin, which includes mapping of geologic units offshore. Current groundwater levels and historic trends will be reviewed and evaluated – particularly along the coastline. We will evaluate historic pumping and rainfall conditions relative to groundwater levels to further assess risk of seawater intrusion in the future. We will pay particular attention to the response of coastal monitoring wells to below normal rainfall from 2007 through 2009. Potential mitigation alternatives will also be reviewed and discussed.

Anticipated Deliverables:

Technical Memorandum #2 will document the results of the subtasks comprising the Basin Characterization efforts, and summarize the findings. The TM will be heavily reliant on graphical illustrations, including the cross-sections, aquifer testing results, and maps. As before, the TM will include a compilation of all the collected materials in electronic format.

TASK 4 – CLIMATE CHANGE

GEI will complete the DWR Vulnerability Assessment Checklist related to climate change for the Project Area and include it with the final report. We will coordinate with agencies and stakeholders in the Santa Barbara County portion of the SMGB to address consistency. The assessment will utilize the projected climate change conditions as described in the reports titled Projected Future Climatic and Ecological Conditions in San Luis Obispo County, April 2010

(http://www.lgc.org/adaptation/slo/docs/SLOMod elReport_FINALsmall.pdf), and Integrated Climate Change Adaptation Planning in San Luis Obispo County, November 2010 (http://www.slocounty.ca.gov/Assets/PL/CAP-LUCE/climate_change.pdf). These two reports form the basis for updating climate change

Revised June 27, 2013



conditions and assessing climate change vulnerabilities in the SLO Region IRWM Plan.

The two countywide reports identified under the climate change section of the RFP include a comprehensive analysis of climate change impacts in San Luis Obispo County. The first report entitled "Projected Future Climatic and Ecological Conditions in San Luis Obispo County" (Koopman et al., 2010a) evaluates climate change projections for temperature. precipitation, vegetation and wildfire, and sea level rise using three climate models. The analysis is performed for a historical period (1961-1990) and two future periods (2035-45 and 2075-85). The second report entitled "Integrated Climate Change Adaptation Planning in San Luis Obispo County" (Koopman et al., 2010b) presents potential responses in public health, emergency preparedness, agriculture, water resources. water infrastructure. transportation and energy infrastructure, coastal and marine resources, tourism, species, ecosystems, and ecosystem services.

While comprehensive, the two reports do not address some of the specific needs of a water agency as outlined by DWR in the handbook for Regional Water Management Planning with Climate Change Adaptation and Mitigation. We propose to prepare a vulnerability assessment checklist for the Northern Cities and Nipomo Mesa Management Areas. The assessments will be prepared following the same template used in the water agency case study in section 4 of the DWR Handbook. The Vulnerability Assessment Checklist will include sections summarizing baseline water system characteristics, climate change effects, key indicators of change, and vulnerabilities. Topics to be addressed under each section include water demand, water supply, water quality, sea level rise, flooding, ecosystem and habitat vulnerability, and hydropower. The assessment will draw from prior results presented in the countywide reports as well as recent annual reports from Northern Cities and Nipomo Mesa Management Areas. The resulting assessment will therefore address climate change impacts that impact local water resources while conforming to DWR guidelines.

Anticipated Deliverables:

The Task 4 deliverable will be a completed DWR Vulnerability Assessment Checklist, included in the Final Report.

TASK 5 -- GOALS AND OBJECTIVES

Fugro and GEI will work with the District, the Steering Committee, and key stakeholders to arrange for a public workshop to review study results and identify specific preferred goals and objectives for development of the Salt/Nutrient Management Plan and a numerical groundwater model. The Project Team will help facilitate disadvantaged community (DAC) participation as needed. It is extremely important that the goals and objectives of this effort not conflict with those of other plans and instead present a comprehensive picture of regional groundwater management. To this end, this effort will be coordinated with the southern (Santa Barbara County portion) portion of the Santa Maria Groundwater Basin. Public comments received during the workshop and public comment period will be considered and incorporated into the final report.

Anticipated Deliverables:

Upon completion of the public workshop, we will provide the District with the PowerPoint presentation slides of the workshop and a summary of notes, comments, and suggestions from the public workshop. These will also be incorporated appropriately into the Final Report.

TASK 6 -- IRWM PLAN COORDINATION

The integration of results from the Groundwater Basin Characterization report and coordination with the IRWM Plan will be seamless given the Project Team's respective responsibilities in preparing the IRWM plan. Similarly, integration of SNMP efforts in Santa Barbara County will also benefit from related project team efforts.

REPORTING AND DELIVERABLES

Over the course of this study we will provide regular updates of project progress to the County, Steering Committee and participating Basin stakeholder groups through monthly progress reports, meetings, public forums, conference calls, or other appropriate modes of communication. We intend to stay in close contact and coordinate with the Steering Committee throughout the project.

Technical Memoranda

Two technical memos, two summary submittals, and one final report will be prepared for this study as described above and per the requirements of the RFP. The first technical memo (Data Compilation/Data Gaps Technical Proposal for Santa Maria Groundwater Basin Characterization and Planning Activities January 23, 2013 (Project No. 04.20120570) **EXHIBIT A**Revised June 27, 2013



Memorandum #1) will present the compilation, summary of available data, and identification of data gaps. The second technical memo (Groundwater Basin Characterization Technical Memorandum #2) will summarize results of the transducer installation, geologic cross-sections, well testing, surface water infiltration, recharge areas, and offshore aquifers/seawater intrusion subtasks. A separate submittal that will be included in the Final Report (DWR Vulnerability Assessment Checklist) will present the findings of the climate change analysis. Other deliverables will include compilation of Task 2 (Data Analysis) materials in electronic format indexed and organized by subject, and a PowerPoint presentation and summary notes for the Task 5 (Goals and Objectives) public workshop.

Draft versions of the memos and other submittals will be submitted for review. Comments will be addressed in written responses and appropriate modifications will be made.

Final Report

A final report will be prepared that compiles the information and major findings of the technical memos and information from Task 5. A Draft (electronic and five hard copies) of the final report will be presented for review to the District, Steering Committee, and basin stakeholders. Comments provided will be addressed in written responses and/or included as appropriate modifications to the draft final report prior to its finalization (Final Report). Electronic and five hard copies of the Final Report will be provided to the District as well as the computer files for

the groundwater basin characterization database.

Project Database

As noted above, another major deliverable of this study will be the organization of data collected under Task 2 and pertinent results from Task 3 in the form of Excel spreadsheets and ArcGIS geodatabases. The databases will be organized to allow for ease of use by local and state agencies and to facilitate the incorporation and importation of data collected in the future from various sources.

MEETINGS

Two interim meetings and one final meeting will be conducted with the District and Steering Committee. The first interim meeting will serve as a "kick-off" meeting to discuss study objectives and data collection efforts, and to address any other issues in the proposal or general concerns of the County and Steering Committee regarding the study.

In the second interim meeting, the data compilation completed in Task 2 and methods/locations proposed for Task 3 (Groundwater Basin Characterization) will be presented and the District and Steering Committee will have an opportunity to discuss any comments or concerns regarding the two tasks or the first interim report.

The third meeting will be used to present the findings of Task 3 and concerns by the District and Steering Committee regarding the second interim report will be addressed. The third interim meeting will also initiate discussions regarding goals and objectives for Task 5.



Client: Project No. Submittal Date:

<u>Santa Maria Groundwater Basin</u> <u>2012.0570</u> <u>1/23/2013</u>

DIRECT LABOR			Fugro	Fugro	Fugro	Fugro	GEI	GEI	GEI	GEI	GEI				
			Sorensen	Leffler	Nicely	,	Cornelius	Bennett	Almy	Asante	Schatz				
Task	Description	Classification		Associate	Project	Staff	Principal	Principal	Senior	Senior	Principal	CADD/GIS	Word	Task	Task
			Hydrogeo	Hydrogeo	Hydrogeo	Geologist	Geologist	Engineer	Prof	Prof				Labor-Hrs.	Labor Cost
		Rate	\$215	\$185	\$150	\$120	\$212	\$239	\$212	\$179	\$212	\$95	\$75		
Task 1	Project Administration		64				12							76	\$16,304
	•		04				12								
Task 2	Data Analysis		4	40	16				24		4			88	\$16,596
	Tech Memo		4	24	5		2	2				8	4	49	\$8,012
Task 3	Groundwater Basin Characteria	zation												0	\$0
Task 3a	Transducer Installation			8	24									32	\$5,080
Task 3b	Geologic Cross-Sections		8	80	16						16	40		160	\$26,112
Task 3c	Well Testing		4	24	164						20			212	\$34,140
Task 3d	Surface Water Infiltration		2	30										32	\$5,980
Task 3e	Recharge Areas		2	30										32	\$5,980
Task 3f	Offshore Aquifers and Seawate	er Intrusion	2	30										32	\$5,980
	Tech Memo		8	60	30			4			8	20	12	142	\$22,772
Task 4	Climate Change		1	2			4			16		8	4	35	\$5,357
Task 5	Goals and Objectives		10	16			16		4					46	\$9,350
Task 6	IRWM Plan Coordination/Final	Report	16	40	16		20	4	4		8	20	12	140	\$23,780
		Task Subtotal-Hrs.	125	384	271	0	54	10	32	16	56	96	32	1076	
		Task Subtotal-Costs	\$26,875	\$71,040	\$40,650	\$0	\$11,448	\$2,390	\$6,784	\$2,864	\$11,872	\$9,120	\$2,400		\$185,443

DIRECT COSTS	
Travel	\$1,021
Transducers	\$10,000
Subconsultant markup (GEI Consultants)	\$3,536
Optional Task - Pump Installation for Well Testing	\$5,000/Well
Optional Task - Field Work for Stream Infiltration	\$4,000
Subtotal (not including optional items)	\$14,557

TOTAL COST \$200,000

27 of 28





EXHIBIT C

Team Organization



Courtney Howard DISTRICT PROJECT MANAGER



PROJECT MANAGER

Paul Sorensen, PG, CHg (FCL)

TECHNICAL STAFF

PROJECT HYDROGEOLOGIST

Peter Leffler, PG, CHg (FCL)

FIELD DATA COLLECTION

Tim Nicely, PG, CHg (FCL)

DATA ANALYSIS

Peter Leffler, PG, CHg (FCL) Tim Nicely, PG, CHg (FCL) Rob Almy, PG. (GEI) Paul Sorensen, PG, CHg (FCL)

BASIN CHARACTERIZATION

Peter Leffler, PG, CHg (FCL) Paul Sorensen, PG, CHg (FCL) Tim Nicely, PG, CHg (FCL)

CLIMATE CHANGE

Kwabena Asante, PH.D., P.E. (GEI)

GOALS AND OBJECTIVES

Paul Sorensen, PG, CHg (FCL) Mike Cornelius, PG (GEI) Peter Leffler, PG, CHg (FCL)

IRWM PLAN COORDINATION

Paul Sorensen, PG, CHg (FCL) Mike Cornelius, PG (GEI)

REPORTING & MEETINGS

Paul Sorensen, PG, CHg (FCL) Peter Leffler, PG, CHg (FCL) Mike Cornelius, PG (GEI)

INTERNAL TECHNICAL REVIEW

William Bennett, P.E., G.E. (GEI) Richard Shatz, PG, CHg. (GEI)